

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* URSULA KRASKA  
and REIMUND SIMON

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Appeal No. 2002-2131  
Application 09/009,597

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ON BRIEF

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Before KIMLIN, WARREN and MOORE, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

*Decision on Appeal and Opinion*

We have carefully considered the record in this appeal under 35 U.S.C. § 134, including the opposing views of the examiner, in the answer, and appellants, in the brief, and based on our review, find that we cannot sustain either of the rejections of appealed claims 1 through 7 and 10 through 12,<sup>1</sup> all of the claims in the application, under 35 U.S.C. § 103(a) as being unpatentable over Abele in view of Winkler or Bronstert et al (Bronstert), and further in view of *Kirk-Othmer's Encyclopedia of Chemical Technology (Kirk-Othmer)*, Masse et al. (Masse) and Akiyama et al. (Akiyama).<sup>2</sup>

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<sup>1</sup> See the amendment of May 11, 2001 (Paper No. 19).

<sup>2</sup> Answer, pages 3-6.

In order to establish a *prima facie* case of obviousness, the examiner must show that some objective teaching, suggestion or motivation in the applied prior art taken as a whole and/or knowledge generally available to one of ordinary skill in this art would have led that person to the claimed invention as a whole, including each and every limitation of the claims, without recourse to the teachings in appellants' disclosure. *See generally, In re Rouffet*, 149 F.3d 1350, 1358, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998); *Pro-Mold and Tool Co. v. Great Lakes Plastics Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629-30 (Fed. Cir. 1996); *In re Fine*, 837 F.2d 1071, 1074-76, 5 USPQ2d 1596, 1598-1600 (Fed. Cir. 1988); *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531-32 (Fed. Cir. 1988). The requirement for objective factual underpinnings for a rejection under § 103(a) extends to the determination of whether the references can be combined. *See In re Lee*, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002), and cases cited therein.

On this record, we must agree with appellants that the examiner has not made out a *prima facie* case of obviousness with respect to the claimed invention. We find that Abele does disclose a photopolymerizable printing plate for flexographic printing which comprises a photopolymerizable layer which contains at least one elastomeric binder, at least one ethylenically unsaturated monomer addition-polymerizable by actinic radiation, and a photoinitiator or photoinitiator system (col. 1, lines 6-13; col. 2, lines 47-50), which generic combination was acknowledged to be known in the art (col. 1, lines 59-62). Abele discloses that among the disclosed “[s]uitable binders” known in the art, are “[l]inear and radial block copolymers with polystyrene end blocks are especially preferred, such as, for example, . . . (polystyrene/polybutadiene)<sub>4</sub>Si” which can have an average molecular weight between 80,000 and 300,00” (col. 5, lines 53-67). Thus, it seems to us that Abele would have disclosed the claimed photopolymerizable composition to one of ordinary skill in this art to the extent of the (polystyrene/polybutadiene)<sub>4</sub>Si subgenus.

The examiner correctly points out that Abele does not disclose the molecular weight distribution or the di-block content of the (polystyrene/polybutadiene)<sub>4</sub>Si elastomeric binder, extending the elastomeric binder with paraffinic oil or the shore A hardness of the non-photopolymerized and the photopolymerized composition, which parameters are specifically

limited in the appealed claims (answer, pages 3-4). The examiner combines Abele with Winkler, Bronstert and Masse, and based on these disclosures, reasons that one of ordinary skill in the art would have reasonably selected the anionic polymerization method from among three methods known in the art to prepare radial block copolymers, and thus would have arrived at a narrow molecular weight distribution falling within the claimed range (answer, pages 4-5). We note that the examiner did not find that any of Winkler, Bronstert and Masse prepare (polystyrene/polybutadiene)<sub>4</sub>Si that would fall within the teaching of Abele or within the appealed claims. We find that, as pointed out by appellants, Winkler and Bronstert hydrogenate the copolymers for a number of purposes, including the preparation of adhesives in Bronstert, and Masse prepares an epoxidized block copolymer for preparation of adhesives.

The examiner further combines Abele with *Kirk-Othmer*, and based on these disclosures, reasons that one of ordinary skill in the art would have kept the content of the (polystyrene/polybutadiene)<sub>4</sub>Si polymer of Abele as low as possible (answer, page 5). We note that the examiner did not identify any teaching pertaining to (polystyrene/polybutadiene)<sub>4</sub>Si, in *Kirk-Othmer*.

The examiner combines Abele with Akiyama for the position that one of ordinary skill in this art would use a paraffinic oil “to provide soft and rubber-like composition as well as improve the mechanical properties of the cured portion of the photosensitive elastomer composition” (answer, page 6). We find that, as pointed out by appellants, Akiyama prefers paraffinic oils from among a number of softening agents for molding compositions containing rubber-like hydrogenated block copolymers prepared from, *inter alia*, styrene and butadiene, with a homo- or copolymeric polyphenylene ether resin and a polyolefin or polystyrene resin.

The examiner further finds since the combined teachings of all of the applied references “teaches the present photopolymerizable composition,” they also teach “the present claimed shore A hardness,” which “is a physical property” (answer, page 6). Indeed, no reference, including Abele, recognizes shore A hardness to be a characteristic exhibited by a non-photopolymerized and the photopolymerized composition.

It is well settled that the examiner must point to some teaching, suggestion or motivation in the prior art to support the combination of references. *See Lee, supra; Smith Industries*

*medical Systems, Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1356, 51 USPQ2d 1415, 1420-21 (Fed. Cir. 1999); *In re Mayne*, 1043 F.3d 1339, 1342, 41 USPQ2d 1451, 1454 (Fed. Cir. 1997); *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 9292, 933 (Fed. Cir. 1984); *In re Keller*, 642 F.2d 413, 425-26, 208 USPQ 871, 881-82 (CCPA 1981); *see also Dow Chem.*, 837 F.2d at 473, 5 USPQ2d at 1531 (“The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that [the claimed process] should be carried out and would have a reasonable likelihood of success, viewed in light of the prior art. [Citations omitted] Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant’s disclosure.”).

On this record, we determine that the combination of references do not support the examiner’s position that the (polystyrene/polybutadiene)<sub>4</sub>Si as disclosed in Abele would inherently meet the limitations of the appealed claims with respect to molecular weight distribution or the di-block content (answer, page 8) because there is no disclosure in any of the references that all (polystyrene/polybutadiene)<sub>4</sub>Si radial copolymers, regardless of how produced, would necessarily or inherently possess such characteristics. A line of reasoning based on the references suggesting the possibility or probability that this might be so upon the selection of a particular method of preparing such copolymers does not provide a factual foundation for a holding of obviousness. *See, e.g., In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784-85 (Fed. Cir. 1995); *In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981); *cf. Ex parte Levy*, 17 USPQ2d 1461, 1462-64 (Bd. Pat. App. & Int. 1990) and cases cited therein; *cf. also Ex parte Levengood*, 28 USPQ2d 1300, 1301-02 (Bd. Pat. App. & Int. 1993) (“At best, the examiner’s comments regarding obviousness amount to an assertion that one of ordinary skill in the relevant art would have been able to arrive at appellant’s invention because he had the necessary skills to carry out the requisite process steps. This is an inappropriate standard for obviousness. . . . That which is within the capabilities of one skilled in the art is not synonymous with obviousness. *Ex parte Gerlach*, 212 USPQ 471 (Bd. App. 1980).”).

We further must agree with appellants that the examiner has not established that one of ordinary skill in the art to which the claimed invention and Abele pertains would have combined Abele with the disclosure in Akiyama of a dissimilar molding composition for a suggestion to



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